


GENERAL INFORMATION

RH4BLUE is the concentrated version of our blue rhodium for bath plating. To prepare the ready-to-use product, simply pour the 250 ml bottle into 750 ml of pure deionized water. This blue rhodium electrolyte has been designed specifically for decorative electroplating applications by granting alternative color options for finishes. Blue rhodium is a perfect option to add color to metallic substrates such as jewelry while maintaining the precious aspect of the design. Most commonly used for plating the prong area to enhance the color of blue stones, this room temperature procedure makes it ideal for two-tone designs. Given that it is a bath plating process, the deposition is more stable in terms of color and grants wear resistance.

Product form

Metal concentration	4 g/250 ml (Rh)
Solution form	Liquid
Plating solution color	Dark orange
Storage time	1 year
Volume	1 liter

Deposit data

Solution appearance	Glossy blue
Hardness [HV 0.01]	800-900
Density [g/cm ³]	11.2
Plating solution color	Blue
Thickness range [µm]	0,05 - 0.20


Operating data
RANGE
OPTIMAL

Voltage [V]	2.0 - 2.2	2.1
Working temperature [°C]	22 - 25	23 - 24
Exposure time (sec)	45 - 120	120.0
Anode-cathode ratio	> 2:1	> 2:1
Anode type	Plattonized titanium	
Agitation	Absent	

Metal concentration
METAL
RANGE (g/l)
OPTIMAL (g/l)

Rhodium	3.0 - 5.0	4.0
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Color coordinates

L*	29.1
a*	-5.0
b*	-21.9
c*	22.5

**PREPARATION**

RH4BLUE is sold as a kit composed by:

- **RH4FBLUEA**: concentrated rhodium 4g/250ml solution
- **RH4FBLUEB**: blue additives 40ml

To prepare 1 liter of ready-to-use solution follow the following steps:

- Fill the work tank half the volume with demineralized water
- Add all the **RH4FBLUEA** solution to the work tank
- Wash the bottle of **RH4FBLUEA** with demineralized water
- Add all the **RH4FBLUEB** solution
- Fill to 1 liter volume with demineralized water
- Shake the whole solution for a few seconds

EQUIPMENT

Working vessel: Pyrex glass / PVC / polypropylene.

Power supply: DC current rectifier with low residual AC (<5%).

Heating element.

Anode Type Platinized Titanium [1.5-2.5 µm].

For larger bath volumes:

Magnetic driven filter pumps with 5-15 µm cartridge (before use, boil and wash the cartridges with demineralized water for 3 hours to prevent organic contamination).

Amp/min counter.

PRE TREATMENT

In order to obtain a good result, samples must be cleaned through ultrasonic cleaning and electrolytic degreasing. To obtain better results, we suggest to use the product **SGR1** (see the referred technical chart)

Attention: in order to obtain the best performance, it is advisable to pretreat the samples with a yellow gold strike (possibly in the 24 kt yellow color).

POST TREATMENT

The electrolyte should be removed from the surface as quick as possible. Wash off the bath residual in a recovery rinse (still rinse). Rinse the parts in circulating deionized water and dry.

WATER PURITY

To prevent contamination of the bath both during its preparation and any replenishing operations, use demineralized water with a conductivity of less than 3µS/cm (containing no traces of organic compounds, Chlorine, Silicon, or Boron).

BATH MAINTENANCE

RH4BLUE has to be used until the rhodium solution is completely exhausted without adding any rhodium concentrate replenisher solution.

SUPPLEMENTARY INFORMATION

IMPORTANT: Store in a cool and dry place, away from light and heat. Don't expose the bath to direct sunlight. Always store the product in a temperature range between 4°C and 10°C in a fridge.

**SAFETY INFORMATION**

Being an acidic solution, the electrolyte is corrosive therefore is an irritant to the skin, eyes and mucous membranes. Caution should be exercised when using the product, avoiding contact with the eyes and skin. Use gloves and safety goggles. Keep away from cyanide based chemicals. For further information please refer to the relative MSDS.

DISCLAIMER

All recommendations and suggestions in this bulletin concerning the use of our products are based upon tests and data believed to be reliable. Since the actual use by others is beyond our control, no guarantee expressed or implied, is made by Legor Group, its subsidiaries or distributors, as to the effects of such use or results to be obtained, nor is any information to be construed as a recommendation to infringe any patent.